

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD RIVER AND PLATEAU COMMITTEE

August 11, 2015

Richland, WA

Topics in this Meeting Summary

Opening.....	1
207-A Retention Basin.....	2
Transuranic Waste Milestones (M-091)	4
Plutonium Finishing Plant Letter of Commendation and Presentation Preparation	9
Committee Business.....	9
Attachments	11
Attendees	12

This is only a summary of issues and actions discussed at this meeting, and it may not represent the fullness of represented ideas or opinions. This summary should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Opening

Pam Larsen, River and Plateau Committee (RAP) chair, welcomed the committee and introductions were made. Committee members adopted the May 2015 RAP meeting summary.

Kris Skopeck, U.S. Department of Energy—Richland Operations Office (DOE-RL), reminded meeting attendees that the Tri-Party Agreement (TPA) agencies would host a public meeting on August 11, 2015 to gather public feedback on proposed changes to the TPA M-091 milestone package. Kris noted that the TPA agencies took Hanford Advisory Board (HAB or Board) feedback into account when planning the public meeting with the aim of making the event as inclusive and as approachable as possible.

Dennis Faulk, U.S. Environmental Protection Agency (EPA), provided committee members with a brief update on the status of the Environmental Restoration and Disposal Facility (ERDF) in-trench macroencapsulation waiver that the HAB provided advice on in November 2014. Dennis anticipated that a public comment period relating to the ERDF waiver would open sometime in September or October 2015.

Dennis also commented that the Consortium for Risk Evaluation with Stakeholder Engagement (CRESP) Consolidated Appropriations Act, 2014 (H.R. 3547 or Omnibus) Report was sent to the U.S. Congress in early August 2015. Dennis noted that the report was critical of regulatory agencies across several U.S.

Department of Energy—Office of Environmental Management (DOE-EM) sites. RAP members expressed interest in discussing the findings of the CRESP Omnibus report in further detail at upcoming committee meetings. Ryan Orth, EnviroIssues, noted that the Facilitation Team would forward the CRESP Omnibus report to HAB members for further consideration.

207-A Retention Basin

Agency Presentation

Mike Collins, DOR-RL, provided the committee with an update on DOE-RL's closure plan for the 207-A Retention Basin, located within the 200 East Area. Mike provided committee members with a description of the Basin as well as an overview of the planned closure process. Key points from his presentation^{1, 2} included:

- 207-A is composed of three cells, each capable of containing approximately 70,000 gallons of liquid. The basin was used to impound condensate from the 242-A Evaporator. Condensate was held within the basin for purposes of sampling and analysis before it was discharged to the 216-A-37-1 Crib. Discharge to the basin ended in 1989, and the basin has been inactive and empty since.
- The condensate stored within 207-A was designated as dangerous waste, as it was derived from waste containing spent solvents. The condensate also contained ammonia and trace amounts of radioactive ions.
- 207-A's cells were coated with Hypalon to prevent waste from penetrating the concrete. All of 207-A's structures have remained intact and no leaks have been reported or discovered. Samples of the concrete meet the standards for Model Toxics Control Act (MTCA) Method B criteria. Future sampling will work to determine whether or not soil beneath 207-A also meets MTCA Method B criteria.
- The plan for closure of 207-A involves removing the basin storage cells and up to 3 feet of soil. Removed materials will be disposed of at ERDF. Additional closure activities will include waste management activities, air emission controls, health and safety requirements, cultural and ecological resource reviews, and soil verification sampling and analysis.
- If sampling and analysis demonstrate that contamination is present at 207-A above unrestricted use standards, a post closure plan will be submitted as required by Washington Dangerous Waste regulations.
- DOE-RL will explore a Class III Permit Modification to add 207-A to Section V (Closure Units) of the Hanford Facility Permit. The Class III Modification process has involved a 60-day public comment period, which is ongoing.

Attachment 1: 207-A South Retention Basin Closure Plan (DOE-RL Presentation)

Attachment 2: Public Comment Period on the 207-A South Retention Basin Closure Plan (Fact Sheet)

Regulator Perspective

Nina Menard, Washington Department of Ecology (Ecology), noted that Ecology was pleased that DOE-RL was addressing the closure of the 207-A Retention Basin. Nina noted that Ecology does not anticipate that DOE-RL will discover soil contamination at the site. Finally, Nina recognized that, in addition to the ongoing 60-day public comment period, Ecology will host an additional 45-day public comment period.

*Committee Questions and Responses*³

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q. Since the basins have been empty for so long and since no contamination has been discovered, why is DOE-RL not grouting the 207-A cells and leaving the soil in place?

R. [Ecology] Unfortunately, 207-A does not meet RCRA requirements for surface closure. To leave the facility in place, additional samples of concrete would be necessary, and DOE-RL would be required to conduct additional soil sampling to prove that the cells did not leak. The current closure plan is the least costly option available.

Q. What is the distinction between Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) closure criteria at the 207-A Facility?

R. [Ecology] The U.S. Department of Energy (DOE) built the 207-A Facility under CERCLA to RCRA standards. The facility is being closed under RCRA, but, as ERDF is a CERCLA-permitted facility, any waste that will be disposed of at ERDF also needs to have appropriate documentation under CERCLA.

C. 207-A is closing under RCRA; however, the plan does not incorporate a post-closure groundwater contingency plan. 207-A is a surface impoundment that is made of concrete. Even if it does not seem to have leaked, it still should have groundwater monitoring in place. DOE-RL needs to ensure that closure of 207-A meets all RCRA requirements and that no backsliding will occur on any contaminants.

R. [Ecology] The closure plan will incorporate a sampling and analysis plan. Also, DOE-RL chose to do a MTCA Method B closure (Ecology's mandate), and DOE-RL decided to use the cleanup levels that are included in the Cleanup Levels and Risk Calculation (CLARC) tables. The cleanup levels noted by the CLARC tables are generally used at smaller cleanup sites, as they are more strict.

Committee members thanked Mike and Nina for the information. Agency representatives reminded committee members that the initial public comment period for the closure plan was ongoing through August 28, 2015.

Attachment 3: Transcribed flipcharts

Transuranic Waste Milestones (M-091)

Introduction

Shelley Cimon provided committee members with an introduction to the M-091 milestone series, which concerns the retrieval, characterization, treatment, packaging, certification, and shipment of suspected transuranic (TRU) waste, and the recently proposed changes to the milestones. Shelley recognized that the HAB is concerned about TRU waste at the Hanford Site, citing the Waste Isolation Pilot Plant's (WIPP) delayed ability to accept incoming TRU waste for disposal. Shelly noted that WIPP's permit to accept TRU waste only extends to 2030. Shelley was concerned that WIPP's permit would expire before the Hanford Site had the opportunity to dispose of waste.

Regulator Presentation

John Price, Ecology, provided RAP members with additional background and information relating to the M-091 proposed changes. John noted that the RCRA has a time limit on one year for storing dangerous or mixed dangerous waste. However, in the early 1990s the U.S. Congress realized that this time limit was problematic to DOE, as the agency was responsible for so much waste across its many sites. In response, congress passed the Federal Facilities Compliance Act (FFCA); this recognized that DOE has the ability to store waste for longer than one year if they follow an order. John stated that the TPA is the order governing waste storage at the Hanford Site. He noted that Ecology considers DOE to be out of compliance with the order and out of compliance with the FFCA if the agency begins to miss milestones. The proposed changes to the M-091 milestones are an attempt to move forward with the retrieval, treatment, and disposition of TRU waste in the most feasible and agile way possible.

Key information covered within John's presentation ^{4, 5, 6} included:

- All TRU waste from DOE-EM Sites across the country must be disposed of at WIPP. However, the facility has been unable to accept new waste for disposal since early 2014, and it is unclear when WIPP will begin accepting TRU waste again and how Hanford Site waste will fit into the updated queue. The changes to the M-091 Milestones will work to adjust dates to accommodate WIPP delays. Additionally, DOE-RL has also been falling behind on several of the non-enforceable retrieval milestones.
- CERCLA waste (pre-1970 TRU) is not subject to the M-091 milestones. DOE is currently coordinating a schedule for waste that is not covered under M-091.
- There are approximately 57,000 containers of TRU and mixed low-level waste stored at Hanford (37,000 containers that were "retrievably stored" after 1970, 12,000 containers that are still buried in trenches on site, and 8,000 containers that are currently stored at the Central Waste Complex [CWC]).

Attachment 4: Tri-Party Agreement M-091 Milestone Series Proposed Changes (Ecology Presentation)

Attachment 5: Proposed Tri-Party Agreement Changes for Managing Hanford's Solid Waste (Fact Sheet)

Attachment 6: HNF-19169, Rev. 14 (selected pages)

- Many of the containers that remain buried in trenches are in poor condition. Ecology also has concerns about the state of the containers stored at the CWC.
- Mixed low-level waste is disposed of on site at Hanford. TRU waste must be disposed of at WIPP. Waste containers that DOE-RL characterized have been approximately 50 percent mixed low-level waste and 50 percent TRU waste. Waste that moves to WIPP for disposal must be packaged in specialized TRU disposal containers.
- A project management plan is incorporated in the M-091 milestones, as well. This management plan (HNF-19169, REV. 14) has not yet been approved by Ecology. However, the document provides important information and it is publically available.
- DOE-RL recently raised the issue that continued waste retrieval to CWC does not make sense, as there is currently no capacity to store additional waste.
- Proposed changes to the M-091 series include delaying complete waste retrieval by ten years (proposed date is 2028). This will save on handling, repackaging, and storage costs. However, the proposed changes will not alter the final deadline for TRU shipment off-site. Ecology expects that DOE will ship all TRU waste to WIPP by 2030. The proposed changes will also change DOE-RL's existing strategies used for certifying and treating waste.
- The initial M-091 series demonstrates that DOE-RL needed to have a definitive design for an operation on-site that could treat (repackage) difficult waste containers by 2018. Currently, waste is repackaged by Perma-Fix Northwest, Inc. (Perma-Fix); however, some of the waste containers cannot be managed by Perma-Fix, either because the waste is too large, it is remote handled, or it exceeds Perma-Fix's radioactive materials license limit. Permitting and constructing a new facility will cost hundreds of millions of dollars per year. Proposed M-091 changes would alter the 2018 deadline so that DOE would instead present Ecology with a comprehensive alternatives study. One year after that (2019), DOE would be required to move forward with additional milestones.

Regulator Perspectives

Al Farabee, DOE-RL, again recognized the dual driver for the M-091 updates: delays in WIPP shipments and the need to put more emphasis on waste already stored at CWC. Al noted that the proposed changes to the M-091 milestones are progressive in that they allow the agencies to identify a target, consider that target over one year, and then fix a milestone following that period of dialogue and cooperation.

*Committee Questions and Responses*³

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q. What is the estimated number of waste containers that are not covered under the M-091 milestones?

R. [Ecology] The waste that is not included within the milestone is pre-1970 waste. This waste is subject to future CERCLA action.

Q. Would the next TPA milestone negotiation concern pre-1970 waste?

R. [Ecology] There is a milestone already in place to do a Remedial Investigation/Feasibility Study (RI/FS) for the pre-1970 waste burial grounds. DOE-RL is close to having the RI work plan approved by Ecology. DOE would then go out and survey the pre-1970 waste burial grounds and plan potential cleanup strategies. From there, a cleanup alternative would be determined.

R. [EPA] The other group of TRU waste is PW-1, PW-3, and PW-6. At these sites, the remediation decision has already been made; however, no disposition schedule has yet been set, as DOE-RL and EPA would like to see direct shipment to WIPP. EPA predicts that the disposal of TRU waste from these three sites may occur in the early 2020s.

Q. Will pre-1970 TRU waste from PW-1, PW-3, and PW-6 trump other waste streams moving to WIPP?

R. [EPA] It is likely that the Hanford Site will send both the CWC TRU stream and the pre-1970 TRU stream to WIPP at the same time. Once the Idaho Site is finished shipping waste to WIPP, their transportation assets will move to Hanford.

Q. Is a permit modification for Perma-Fix one potential alternative for treating difficult waste?

R. [Ecology] It is conceivable that Perma-Fix could treat additional waste. However, modifications to a facility of this type have never before been explored in an urban area.

R. [DOE-RL] There was an alternatives study that was conducted on this matter in 2002. The primary venues that it looked into were enhancing Perma-Fix, upgrading T-Plant, and constructing a new facility. An upcoming alternatives study would look at a broader suite of options.

Q. Are the agencies working under the assumption that all of the post-1970 TRU waste was put into a barrel and retrievably stored? Are the TPA agencies assuming that there is no unaccounted for post-1970 TRU waste on the Hanford Site?

R. [Ecology] It is very unlikely that there would be post-1970 TRU that is not inventoried.

Attachment 3: Transcribed flipchart notes

R. [DOE-RL] There is some waste in caissons and boxes, but approximately 99 percent of the post 1970 TRU is containerized and in known locations. Older containers have a higher potential for structural issues (e.g. boxes that have collapsed, containers that have corroded, etc.). Therefore, DOE-RL's concern is not finding the waste, but dealing with the waste once it is retrieved.

Q. Why do the proposed milestone changes treat all waste the same (e.g. DOE certifies and treats waste by cubic meter per year as opposed to by characteristic or ease of treatment)? There are some treatment capabilities that will be online and available sooner than others will be, and this should be taken into account in the milestone updates.

R. [Ecology] Figure 1.4 from HNF-19169, REV. 15, demonstrates that treatment of waste requiring alternative capability will begin in 2026. Ecology has told DOE that the 280-400 cubic meters of waste that is to be treated/repacked in the coming years should initially focus on difficult items. Ecology would like problem containers to be addressed as soon as possible.

Q. Why does DOE-RL want to build a large facility to treat waste that requires alternative capacity?

R. [DOE-RL] DOE has departed from the idea of building a large treatment facility. DOE's alternatives study would be driven by capability, and a key idea for further exploration would involve packaging waste at the trench. The 2002 study did envision a very large facility; however, DOE-RL does not want to move in that direction anymore. DOE-RL's first preference in all occasions will be to move waste to Perma-Fix for treatment.

Q. Has Ecology ever responded to the HAB's comments related to closing the illegal storage areas at the CWC?

R. [Ecology] The movement to update the M-091 series is the response to those concerns. In order to close a unit, all waste must be removed. In order to remove waste, it must be processed.

Q. The proposed changes are missing deadlines for waste that does not assay as TRU. There are no mixed waste milestones for treatment and closure.

R. [DOE-RL] There is a body of waste that is approximately 80 cubic meters of mixed low-level waste that still needs to be treated.

Q. The state of Washington went to federal court and won a major decision. The ruling stated that any waste stored for more than a couple of years had to be treated. Where is that ruling reflected in the proposed changes? Ecology is giving DOE-RL fifteen years to dispose of waste that is illegally stored.

R. [Ecology] The M-091 milestones came out of the settlement. Shipment to WIPP may be done in lieu of treatment. Ecology does not have regulatory authority over purely TRU waste. DOE-RL can store TRU waste on-site for as long as they want, and Ecology has no ability to control that waste. However, Ecology does have the authority to force DOE to designate waste. DOE does not like to sample and designate waste, as it is an expensive process that exposes workers. Several years ago, Ecology and DOE-RL agreed that all waste is assumed to be TRU-mixed waste. This

places the waste under Ecology's authority. In return, Ecology does not force DOE-RL to sample and designate waste.

C. It is alarming that a temporary solution incorporated into the proposed M-091 milestone updates includes leaving materials within the soils.

C. The proposed changes seem very reasonable moving forward under the existing funding challenges.

Q. How does WIPP tie into the 200-SW-2 Work Plan?

R. [Ecology] WIPP currently does not tie into the 200-SW-2 Burial Ground Work Plan. A decision on the work plan is still approximately seven years out, and the TPA agencies will not know if the 200-SW-2 burial grounds will add TRU waste to the inventory for several years. Therefore, any waste at 200-SW-2 does not fall under the M-091 series.

Q. What milestone are 200-SW-2 burial grounds covered by?

R. [Ecology] Any waste in 200-SW-2 burial grounds are covered by the work plan and the RI/FS milestones. There must be a decision first before the agencies can move forward with waste management, and the decision will demonstrate how much waste the site will generate.

Q. Some burial sites are over old effluent ponds. Where are these sites located, and how many are there?

R. [Ecology] There is likely only one pond that is also a waste burial site.

R. [DOE-RL] There are 25 solid waste burial grounds on the Central Plateau. Eight of these burial grounds are currently the subject of the RCRA Dangerous Waste Permit.

Hanford Advisory Board Draft Advice on M-091 Milestones Changes ⁷

Issue managers for the M-091 proposed changes topic drafted advice for committee review in anticipation of the September 2015 Board meeting. RAP members reviewed the advice and provided comments to be incorporated into an updated draft.

C. Speaking from a global level, the draft advice discusses the problems relating to WIPP delaying acceptance of waste. The first advice point works to recognize that a plan is needed, and that agreement between the TPA agencies is important.

R. [EPA] The first advice point could use additional clarity.

C. It is important to add an advice bullet that recommends that TPA milestones be based on the quickest possible capability for the treatment and removal of all illegally stored wastes and include a firm deadline for closing the illegal storage units.

Attachment 7: Hanford Advisory Board Draft Advice on M-091 Milestones Changes (Draft, Rev 2)

C. The HAB should advise additional public meetings on buried solid waste. The public comment period should also be extended to accommodate additional meetings across the region.

C. The advice should recognize the disconnect between the M-091 milestones and buried waste in the 200-SW-2 burial ground. The two efforts need to be integrated, otherwise the 2030 deadline will not be achievable.

C. The second page of the background reads as though the 2030 deadline is relaxable and not achievable and that, therefore, the HAB could envision this deadline being extended. It is important to keep in mind that WIPP loses its ability to accept TRU waste after 2030.

Committee members thanked John and Al for their perspectives. Issue managers recommended that RAP members send suggestions and edits to them by the end of the week. Issue managers would work to incorporate committee ideas and clarify advice language in anticipation of full-Board review in September 2015.

Plutonium Finishing Plant Letter of Commendation and Presentation Preparation

Steve Hudson, HAB chair, provided committee members with an introduction to the draft Plutonium Finishing Plant (PFP) letter of commendation ⁸. Steve recognized that the committee had initially conceptualized the letter following DOE-RL's May debrief of ongoing cleanup efforts at the PFP. RAP members were impressed with the progress that the contractor had made at the PFP, and Steve stated that the letter was an opportunity for HAB members to recognize the accomplishments of the workforce. RAP members read the draft letter and provided minor wording suggestions.

Members recommended that the PFP letter of commendation move forward for HAB review at the September 2015 Board meeting.

Committee Business

Committee members reviewed the HAB's FY2016 Work Plan ⁹, focusing primarily on topics that are led by the River and Plateau Committee. Committee members provided minor updates on the framing and timing of selected Work Plan topics. The Executive Issues Committee would consider RAP input in conjunction with TPA agency liaisons, and the FY2016 Work Plan would move forward at the September 2015 Board meeting for HAB approval.

RAP members noted that they would like to receive additional clarity on the contact lists that TPA agencies use to distribute draft documents. Emy Laija, EPA, noted that the TPA agencies do not request HAB feedback on technical documents, as the Board often lacks the resources required to conduct a

Attachment 8: Letter to PFP Workforce (v0)

Attachment 9: Hanford Advisory Board FY2016 Work Plan

review. Emy noted that she would clarify the distribution list for draft documents, stating that the TPA agencies could potentially make additional draft documents available for information purposes. Emy reiterated that the HAB is not expected to provide the same level of feedback on these drafts as regulatory agencies are.

RAP 3-Month Work Plan ¹⁰

The RAP committee will plan to meet in September 2015, and the committee meeting will tentatively include the following topics:

- Receive an update on cesium and strontium storage at WESF
- Committee follow-up and discussion of the CRESP Omnibus Report
- Discussion on Central Plateau Milestone packages M-015, M-016, M-037, and M-085
- Discuss the TPA agency response to HAB Advice #283, Central Plateau Inner Area Guidelines

In October 2015, RAP tentatively plans to meet and follow up on potential CRESP advice, the 100 D/H Proposed Plan, and Central Plateau Inner Area Guidelines as they relate to SW-2, WA-1, and DV-1.

Attachments

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Attachment 9: Hanford Advisory Board FY2016 Work Plan

Attachment 10: RAP 3-Month Work Plan

Attendees

Board members and alternates:

Don Bouchey	Pam Larsen	Dan Serres (phone)
Jan Catrell	Susan Leckband	Richard Smith (phone)
Shelley Cimon	Angela Malorni	Gene Van Liew
Dale Engstrom	Liz Mattson (phone)	Jean Vanni (phone)
Gary Garnant	Gerry Pollet	Steve White
Steve Hudson	Ed Revell	

Others:

Mike Collins, DOE-RL	Dennis Faulk, EPA	Kurt Workman, CH2M
Al Farabee, DOE-RL	Emy Laija, EPA	Ryan Orth, EnviroIssues
Jon Peschong, DOE-RL	Elis Eberlein, Ecology	Brett Watson, EnviroIssues
Kris Skopeck, DOR-RL	Nina Menard, Ecology	Jen Copeland, MSA
Alex Teimouri, DOE-RL	Tim Mullin, Ecology	Jennifer Colburn, MSA
	John Price, Ecology	Pedro de la Torre III, Public
	Ron Skinnerland, Ecology	
	Ginger Wireman, Ecology	
	Tom Rodgers, WDOH	